CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET
SACRAMENTO, CA 95814-5512

August 2, 1999

Mr. Les Toth
5546 Old Salt Ln
Agoura Hills, CA 91301

Dear Mr. Toth:

THREE MOUNTAIN POWER PROJECT DATA REQUESTS NUMBERS 1 THRU 43

Pursuant to Title 20, California Code of Regulations, section 1716, the California Energy Commission (Energy Commission) staff requests that the Three Mountain Power Project, Limited Liability Company (LLC) supply the information specified in the enclosed data requests (Data Requests 1 through 43).

The subject areas addressed in these data requests are biological resources, cultural resources, land use, noise, visual resources, worker safety, and transmission system engineering. Air quality and water & soils resources data requests will be sent to under separate cover later this week. The information requested is necessary to: 1) understand the project, 2) assess whether the facility will be constructed and operated in compliance with applicable regulations, 3) assess whether the project will result in significant environmental effects, 4) assess whether the facilities will be constructed and operated in a safe, efficient and reliable manner, and/or 5) assess project alternatives and mitigation measures.

Written responses to the enclosed data requests are due to the Energy Commission by September 2, 1999 or at such later date as may be agreed upon by the Energy Commission staff and the applicant. A publicly noticed workshop is scheduled for August 12, 1999, in Sacramento to discuss these data requests and to have staff available to answer questions regarding the data requests and the level of detail required to answer the requests satisfactorily.

If you are unable to provide the information requested in the data requests or object to providing it, you must, within 15 days of receiving these requests, send a written notice of your inability or objection(s) to both Chairman William J. Keese, Presiding Member of the Committee for this proceeding, and me. The notification must also contain the reasons for not providing the information and the grounds for any objections (see Title 20, California Code of Regulations section 1716 (e)).

If you have any questions regarding the enclosed data requests, please call me at (916) 653-1614.

Sincerely,

Richard Buell
Siting Project Manager

Enclosure
cc: Proof of Service 99-AFC-2
RKB:rkb
DATAREQ1.doc

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Three Mountain Power Project (99-AFC-2)
Staff Data Requests

Technical Area: Biological Resources
Author: Linda Spiegel

ISSUE: The Three Mountain Power Plant project will require 88 miles of an existing Pacific Gas and Electric 230 kV transmission line to be reconductored. Reconductoring will be accomplished from 20 (3-arce each) pull sites spaced at a maximum of 4 miles apart. No new towers or access roads will be required. The transmission line route transverses U.S. Forest Service land, and several water ways and habitat types that support sensitive biological resources, including rare plants, wetlands, and nesting raptors. The Applicant conducted helicopter surveys to determine habitat types along the line in March 1999. Reconnaissance-level ground surveys of pull sites were conducted in April 1999. Because of cold temperatures, some sensitive plants and raptor nesting sites were not apparent during the time of the surveys. The AFC states (page I-2-156) that pull sites will be revisited and surveyed prior to reconductoring activities and that sensitive resources will be avoided. The AFC further states (page I-2-156) that a Raptor Management Plan will be prepared to address potential impacts to nesting raptors.

1. To ensure avoidance of sensitive habitats, plants and wildlife, please provide a draft Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP).[1] This BRMIMP must include the following:

    a. Descriptions and maps (scale 1 inch equals 100 feet) of each pull site and lay down area showing locations of the 3 acres required for the pull site, set up and lay down sites, access routes, and specific biological resources, including critical deer habitat and migration routes;

    b. Specific measures that will be taken to avoid the resources and minimize disturbance for the transmission lines, plant site, gas pipeline and water pipelines;

    c. The Raptor Management Plan;

    d. Correspondence that verifies coordination with the U.S. Forest Service for conducting activities on their land, and;

    e. Correspondence that verifies coordination with California Department of Fish and Game (CDFG) and U.S. Fish and Wildlife Service (USFWS).

[1] A final BRMIMP that will include all Biological Resource Conditions of Certification and any additional requirements from the CDFG and USFWS must be developed prior to the completion of the Final Staff Assessment.

ISSUE: Acreages and distances required for the facility are inconsistent throughout the AFC. For example:

Power Plant Site

- 10.2 acres are identified on AFC page 2-2
- 6.6 acres are identified on AFC page 6.13-29 and in AFC Table 6.13-4

Water Pipeline

- 1 mile is identified on AFC page 2-9
- 6700 feet are identified on AFC page 2-53
- 8.5 acres (6171 ft) are identified on AFC page 6.13-43
- no acres are identified in AFC Table 6.13-4
- acres for the 10-inch discharge line not provided in the AFC

Gas Pipeline

- 3.91, 5.14, and 10.5 acres for Alternatives A, B, and C, respectively, are identified on AFC page 6.13-41 and in AFC Table 6.13-4
- 3.99 (2,900 x 60 feet), 5.5 (4,000 x 60 feet), 11.02 (8,000 x 60 feet) acres for Alternatives A, B, and C, respectively, are identified on AFC page 6.13-41

Transmission Line

- 6.2 acres (1800 x 150 feet) are identified on AFC page 6.13-39
- 11 acres are identified in AFC Table 6.13-4
- 2.3 acres switchyard (200 x 400 feet) are identified on AFC page 6.13-27
- 60 acres pull sites (20 @ 3 acres each) not included in AFC Table 6.13-4
- acres for lay down sites not provided in the AFC

2. Please provide a table listing the correct lengths, widths, and acreages for all of the above facilities and a map (excluding the existing transmission line that will be reconductored which is covered in the above data request) which clearly shows the location of these and delineates the habitats (ponderosa pine forest, grassland, and developed lands) which will be disturbed.

Technical Area: Cultural Resources
Author: Dorothy Torres & Kathryn Matthews

ISSUE: To complete a thorough analysis, staff needs clarification regarding the areas surveyed.

3. Please provide a map on a topographical base in the scale of 1:24000. On this map, please indicate the survey boundaries for the project site and all linear facilities except the transmission line that will be reconductored.

4. Please revise Figure 6.4-4 to show areas that were surveyed for the presence of cultural resources.

ISSUE: To assess potential impacts to cultural resources, staff needs to have thorough knowledge of earth disturbing activities in the vicinity of the proposed power plant.

5. For the power plant site and immediate vicinity, please discuss the estimated depth of anticipated disturbance and the potential for proposed cut and fill activities.

    a. Please also discuss the potential for excavation and construction of foundation mats or pads to enter previously undisturbed soils.

    b. Please provide a quantified estimate of the area that will be disturbed by cut and fill activities.

    c. Please include any areas that may be located off site, such as parking lots, storage areas, pull sites, and road spurs.

6. Please indicate where any fill materials will be stored.

7. Please provide the width and depth of trenches necessary for all linear facilities.

8. Please also provide the width of the right of way for linear facilities.

ISSUE: The applicant has indicted that there is a possibility that there may be a Native American sacred site within the vicinity of the project. The question of whether or not there is a sacred site has not been resolved.

9. The AFC indicated that letters were sent to representatives of the Native American community regarding the possibility that a sacred site may exist within the vicinity of the project. At the time the AFC was filed, there had been no response from representatives of the Native American community. Has there been a response to the inquiry letters since the filing of the AFC? If so, please provide it.

ISSUE: To complete a thorough analysis, staff must have a have a complete overview of the proximity of project facilities to cultural resources.

10. Please provide a map similar to Figure 6.13-3, previously prepared for Biology (color optional).[2] Prepare the map to the scale of 1-inch equals 1-mile. On this map, indicate the project site and all the proposed linear facilities. Please include the transmission line that will be reconductored. On this same map, please indicate all the cultural resources identified during the literature search.

11. Please provide a second map similar to Figure 6.13-3, previously prepared for Biology (color optional). Prepare the map to the scale of 1-inch equals 1-mile. On this map, indicate the project site and all the proposed linear facilities and include the transmission line that will be reconductored. On the same map, please indicate the location of the 47 newly identified cultural resources.

12. Please provide a third map similar to Figure 7.13-3, previously prepared for Biology (color optional). Prepare the map to the scale of 1-inch equals 1-mile. On this map, indicate the project site and all the proposed linear facilities and include the transmission line that will be reconductored. On the same map, please indicate (if known) the location of the potential cultural resources referenced in "Cultural Resources Reconnaissance Study along the PG&E 230kv Transmission Lines: Pit 1-Cottonwood, Pit1-Pit 3, and Pit 3 Round Mountain" p. 3-1. If the location of probable resources is not known, please provide a discussion of its probable location.

13. The AFC p. (1-23) indicates that the following transmission lines will be reconductored: Pit 1-Cottonwod, Pit1-Pit3 and Pit 1-Round Mountain. Confidential filing Appendix C indicates that the following transmission lines will be reconductored: Pit 1 Cottonwood, Pit 3-Pit1 and Pit 3-Round Mountain. Please clarify whether Pit1-Round Mountain or Pit 3-Round Mountain is the line scheduled to be reconductored.

[2] If possible, the applicant may choose to provide one map in response these data requests. However, if only one map, then each resource type should be clearly shown, at the 1 inch equals a mile scale.

Technical Area: Land Use
Author: Gary Walker

ISSUE: The AFC (p.1-8) states that "There are no sensitive land uses within a 1-mile radius of the Site and lay-down area." However, the AFC (p.1-8) also states that "the nearest residence is located approximately 1,400 feet from the Site boundary and approximately 1,800 feet from the power island."

14. Please explain the apparent discrepancy between these two statements.

ISSUE: The AFC (p.6.3-7) states that "The County currently has an application for a residential development on approximately 300 acres along Black Ranch Road."

15. Please specify the distance from the proposed power plant site to the proposed residential development, and provide a map to scale showing the power plant site, Black Ranch Road, and the site of the proposed residential development.

ISSUE: AFC Figure 2.1-1 shows the proposed water pipeline route and the three proposed alternative natural gas line routes. However, the map does not clearly show the full length of the Alternative B gas line route, apparently because part of the route is the same as the Alternative C gas line route and another part is the same as the proposed water pipeline route.

16. Please provide a map that clearly distinguishes between the three proposed alternative natural gas line routes.

ISSUE: The AFC (p.3.6-12) discusses the three natural gas tie-in line alternatives proposed (Alternatives A, B, and C). The AFC contains a map (Figure 2.1-1) that identifies the proposed gas lines, and other maps that show existing land uses (Figure 6.3-1), general plan land use designations (Figure 6.3-2), and zoning districts (Figure 6.3-3). However, none of the maps in the AFC identify the proposed gas lines as well as existing land uses, general plan designations, or zoning districts.

17. Please provide the following:

    a. A map identifying the three proposed natural gas tie-in line alternatives as well as existing land uses.

    b. A map identifying the three proposed natural gas tie-in line alternatives as well as general plan land use designations.

    c. A map identifying the three proposed natural gas tie-in line alternatives as well as zoning districts.

ISSUE: The AFC (p.3.6-12) states that "A water pipeline would be constructed for the proposed project and would follow existing roadways and rights-of-way to connect with the Burney Water District's proposed storage facility near Mountain View Road."

18. Please provide a map to scale that identifies the proposed water pipeline route, the existing roadways and rights-of-way, and Mountain View Road.

ISSUE: The AFC (p.6.3-16), states that "Public utility transmission lines, towers, distribution poles and lines, regardless of height, and gas pipelines are permitted uses in all zone districts affected by the proposed Project and may be conditionally permitted with a Use Permit in the Public Facilities (PF) zone district. As natural gas tie-in Alternative C is the only alternative that crosses a zone district with a Public Facilities designation, this alternative would require a use permit."

19. Please specify the existing use of the land zoned Public Facilities that Alternative C would cross.

ISSUE: The AFC (p.3.6-25) states that "The Shasta County General Plan indicates that the Site is compatible with adjacent land uses (Timberland, Rural Residential B, Light Industrial, Public Facility)."

20. Please explain in what way the general plan indicates that the site is compatible with adjacent Rural Residential B land uses.

ISSUE: The AFC (p.6.3-26) states that "overall, construction of the natural gas tie-in line would disturb approximately 3.8, 5, and 10 acres for Alternatives A, B, and C, respectively." However, the AFC (p.5-10) also states that for Alternative C "This alternative is within existing roadway easements. Clearing of trees will not be necessary for the construction of this gas line." Also, the AFC (p.6.3-28) states that "Land use impacts during construction on timberland may result in the loss of trees; however, after completion of construction, the area along the route would be returned to forest. Only in Alternative A would 1.3 acres of timberland area be permanently lost due to requirements for sustained maintenance purposes."

21. Please clarify for each of the proposed gas line Alternatives A, B, and C how many acres of timberland would be cleared due to project and how many acres of timberland would be permanently lost. (see the second data request under biological resources, our response here may refer to the response to that data request).

ISSUE: The AFC (p.6.3-27) discusses the potential effects of gas line Alternatives A and C on residential land uses. However, the AFC does not discuss the potential effects of gas line Alternative B on residential land uses.

22. Please provide a discussion of the potential effects of gas line Alternative B on residential land uses.

ISSUE: The AFC (p.6.3-23) states that "Three Mountain Power, LCC will be responsible for ensuring that a visual buffer surrounds the 40-acre parcel that screens the site from public view." This implies that the buffer would be on adjacent parcels, not on the 40-acre parcel. However the AFC (p.6.6-45) also states that "Additional tree

plantings will be installed along the fence line to increase the level of visual screening of the Facility as seen from State Route 299" and that "The existing tree buffer area located along the west side of the Site will be preserved and maintained and a buffer of trees will be planted on the west side of the PG&E substation in order to screen the Facility as seen from the Vedder Road residential area." The latter statements imply that the buffer will be entirely on the 40-acre parcel.

23. Please specify the location of the Vedder Road residential area.

24. Please clarify whether all of the visual buffer would be on the 40-acre parcel. If it would not be, please explain how the applicant plans to ensure that the portion of the buffer on adjacent parcels would be retained.

ISSUE: One of California Unions for Reliable Energy's (CURE) Data Adequacy comments was that the AFC is based on the Oct., 1995 version of the Shasta County General Plan, but that the General Plan was substantially revised in October, 1998.

25. Please revise the land use section of the AFC to reflect any applicable updates of local plans.

ISSUE: The AFC (p.6.6-50) cites Shasta County's site development standards for the project. The citation specifies that the maximum allowable height is 45 feet (excluding electric transmission lines or towers). The proposed stack would be 140 feet high (AFC, p.6.6-40). The AFC states that the zoning ordinance allows structures to be erected to a greater height than the limit if a use permit is issued, per Section 17.84.030 of the zoning code. However, the Energy Commission staff does not expect that a use permit will be processed or issued by County.

26. Please explain how the applicant plans to address this potential nonconformance with the Shasta County zone ordinance.

Technical Area: Noise
Author: Kisabuli

ISSUE: The AFC is based on the October, 1995 edition of the Shasta County General Plan (GP); the GP has been revised as of October 1998. The revised GP requires new (non-transportation) development to meet an hourly L_{eq} of 55 decibels (dB) during the day and 50 dB during the night at the property boundary of the sensitive receptor.

27. Please update the noise analysis to incorporate the revised standards.

ISSUE: An average noise level measured over a 48-hour period shows that the average noise at the receptor locations ML1 to ML3 ranges from 43~48 dBA L_{90} (background noise levels), AFC page 6.4-5.

28. Please justify why these values are not used in the AFC as a basis to determine noise impact from the proposed project to the nearby sensitive receptors.

ISSUE: A noise standard of 70 dBA and 75 dBA CNEL is used as a basis for determining normally and conditionally acceptable noise impact threshold respectively for the proposed project area. This same criteria is used to determine noise impacts to nearby sensitive receptors (residential). (County Noise Element)

29. Please justify using this standard of measure when determining noise impacts to residential areas when Shasta County recommends using a threshold of <60 dBA as normally acceptable standard for residential land use.

ISSUE: A location of 1,800 feet is used as the nearest sensitive receptor to the project site. There is a sensitive receptor located 1,400 feet from the project site.

30. Please estimate noise impacts to the closer receptor. Conversely, justify the use of the sensitive receptor located 1,800 feet as the nearest sensitive receptor to the site.

ISSUE: AFC presents construction noise levels for each piece of construction equipment, but does not provide any information about what the cumulative noise effect is from all of this equipment (e.g., what type and how many pieces of equipment will be operating at once for each major phase of construction).

31. Please provide an analysis that considers all the equipment operating at each major phase of construction and determine the impacts to workers at the site and the community.

    a. Where the onsite impacts exceed Occupational Safety and Health Administration (OSHA) guidelines, please propose mitigation measures.

    b. Where offsite impacts exceed Shasta County's conditionally acceptable standard, please propose mitigation measures to lessen the noise impacts to acceptable levels.

ISSUE: The U.S. Environmental Protection Agency (EPA) has identified 45 dBA (DNL) as yearly average sound levels sufficient to protect public health and welfare from the effects of environmental noise at the nearest receptor.

32. Please provide an analysis to show that the operation of the proposed power plant will not exceed the EPA guidelines.

    a. If the analysis shows that the proposed project generates noise levels that exceed EPA guidelines, please propose feasible mitigation to reduce the noise to comply with the EPA noise guidelines.

ISSUE: AFC Table 6.4-4 and 6.4-5 of the AFC, both define noise-monitoring locations ML1~ML3, but the definition for these monitoring locations differ on the two tables.

33. Please clarify that ML1~ML3 on the two tables refer to the same monitoring locations.

    a. If these locations are different, please rename the monitoring locations to avoid confusion.

    b. Please show (on a suitable map) where all the monitoring locations ML1~ML6 are in relation to the proposed powerplant project.

ISSUE: Helicopter reconductoring of the transmission line can cause significant noise impacts.

34. If helicopters will be used (see AFC page 6.4-20) during the construction or re-conducting of the transmission line (TL), please estimate the extent to which these helicopters will be used and the likely noise level they will generate. Assess the impact of this noise level to residences along the 88-mile TL route.

ISSUE: In the analysis of the noise level (see AFC page 6.4-21), the applicant shows that there would be a 31 dBA noise attenuation from the noise source to the nearest sensitive receptor and then concludes that there would be no impact during construction.

35. Please provide the expected noise level from the steam blow activities.

    a. If, after attenuation, the noise level exceeds 60~65 dBA for conditionally acceptable standard, please propose additional mitigation measures to reduce the noise impacts to acceptable levels.

Technical Area: Traffic and Transportation
Author: Eric Knight

ISSUE: During the construction phase of the project, levels of service on State Route 299 from Tamarack Road to the project driveway at Energy Drive will decrease to unacceptable levelsXLOS E between Tamarack Road and Plumas Street and LOS D between Plumas Street and Energy Drive. The Traffic Technical Report (Appendix D) prepared by Omni Means for Ogden Environmental suggested the following mitigation measure for the temporary decrease in LOS conditions below State standards: To the extent possible, both construction staff arrivals/departures and truck deliveries should be staggered throughout the day to avoid peak hour problems.

36. Please explain why the applicant is not proposing this mitigation measure in section 6.5.4 (Mitigation Measures) of the Traffic and Transportation section of the AFC.

ISSUE: A queuing analysis was performed to determine the maximum expected queue length for the critical northbound left-turn approach at the State Route 299/Energy Drive intersection under existing plus project conditions. The analysis determined that a maximum of two vehicles would be queued on northbound SR 299 during the morning peak hour. As a worst case, if two 50-foot trucks were queued at this location, the maximum queue length would be approximately 100 feet (AFC, page 6.5-15). The Traffic Technical Report (Appendix D) prepared by Omni Means for Ogden Environmental suggested the following mitigation measure: In order to provide safe vehicular access to the facility, a 100 foot northbound left-turn land and related transition areas should be constructed on State Route 299 at the project access road (Energy Drive).

37. Please explain why the applicant is not proposing this mitigation measure in section 6.5.4 (Mitigation Measures) of the Traffic and Transportation section of the AFC.

Technical Area: Transmission System Engineering
Author: Laiping Ng

ISSUE: Staff needs a complete interconnection study to analyze the reliability implications of connecting the Three Mountain project to the PG&E system. Such interconnection must comply with North American Electric Reliability Council (NERC) Planning Standards, Western Systems Coordinating Council (WSCC) Reliability Criteria and the recently adopted California Independent System Operator (Cal-ISO) Reliability Criteria. Staff has been advised by the Cal-ISO that they have reviewed a May 14, 1999 version of an Interconnection Study for the Three Mountain project.

38. Please provide a copy of the May 14, 1999, Preliminary Facilities Study Report.[3]

[3] Please note that 1704 (a) (3) (B) requires that applicants provide "Descriptions, including methodologies and findings, of all major studies or research efforts undertaker and relied on to provide information for the document (AFC); and descriptions of ongoing research of significance to the project (including expected completion dates)…"

Technical Area: Visual Resources
Author: David Flores

ISSUE: Visible plumes from the cooling tower may result in adverse impacts to visual resources in the project area. In order to asses the potential for visual impacts from the cooling tower, staff needs to know the characteristics of the visible cooling tower plume for the project.

39. Please provide the following information regarding the potential visible plume from the cooling tower exhaust stack:

    a. Quantified estimates of the expected maximum and average height and width.

    b. The data, assumptions, and calculations used to derive these estimates, including the model used.

    c. Quantified estimates of the expected frequency of occurrence and duration, specifying:

        i) the number of hours that the plume will be visible, for each hour of the day per year;

        ii) the total number of hours per year that the plume will be visible;

        iii) the percentage of the total number of hours per year that the plume will be visible;

        iv) the number of daylight hours per year that the plume will be visible;

        v) the percentage of daylight hours per year that the plume will be visible; and

        vi) the data, assumptions, and calculations used to derive these estimates, including the model used.

Technical Area: Waste Management
Author: Ellen Townsend-Smith

ISSUE: Staff needs to identify and evaluate issues concerning the risks and environmental impacts associated with handling, storing, treating, and disposing of project-related hazardous and non-hazardous wastes. The applicant did not provide detailed information of the project's construction and operation waste streams in AFC Section 6.12. Typical waste streams include but are not limited to:

Scrap wood	Spent ion resins	Spent catalyst
Plastic	Waste water sludge	Spent lead acid batteries
Paper	Boiler chemical cleaning waste	Brine concentrate
Cardboard	Cooling tower basin sludge	Turbine compressor cleaning wastes

40. Please provide detailed information for each waste stream identified above, which identifies:

    - Whether waste is generated during construction or operation, or both
    - Whether the waste is hazardous or non-hazardous
    - Estimates weight or volume generated,
    - Frequency of generation, and
    - Describes if waste stream is recycled, reclaimed, or landfilled

Technical Area: Worker Safety
Author: Ellen Townsend-Smith

ISSUE: Fire safety and emergency response protection is a critical issue during construction and operation of the plant. As part of its analysis, staff will identify and evaluate the fire and emergency response capabilities which are available to serve the proposed project. The proposed project is located in an area where the emergency services are provided by two fire departments. The protection for the power plant will be served by the Burney Fire Protection District (District). The ancillary equipment for the proposed project, such as electrical transmission tie-in lines, gas line tie-in routes and water pipelines, are located in the California Department of Forestry's (CDF) service territory. CDF only provides fire protection service in the Burney Area in Shasta County five to six months out of the year. Staff reviewed the application and determined that there was no information that indicated that the applicant had held meetings with either the District or CDF to discuss the fire protection requirements for the facility.

41. Has the applicant had meetings with the fire departments to determine if the Three Mountain Power Project will impact the current level of service in the area?

42. Has CDF or the District indicated what level of additional fire protection equipment will be required for the applicant to have on site during construction or operation of the facility when CDF is not in operation in the area? Additional equipment may include items such as water tenders, small engines, or water tanks.

43. Will the District require additional firefighters or fire fighting equipment to protect the project during construction and operation?